

**Title:** JP59087992A2: OPTICAL HEAD FOR LASER MACHINING

**Derwent Title:** Optical head for cutting or shaping work - has lens for returning laser beam to collimated beam.  
NoAbstract Dwg 2/2 [\[Derwent Record\]](#)

**Country:** JP Japan  
**Kind:** A

**Inventor:** GOTO YOJI

**Assignee:** MITSUBISHI ELECTRIC CORP  
[News, Profiles, Stocks and More about this company](#)

**Published / Filed:** 1984-05-21 / 1982-11-11

**Application Number:** JP1982000001979

**IPC Code:** B23K 26/04

**Priority Number:** 1982-11-11 JP1982000197982  
1982-01-09 JP1982000001979

**Abstract:** **PURPOSE:** To prevent the incidence of the irregularly reflected light from a material to be worked to a laser oscillator by providing a mechanism for condensing once the laser beam drawn out from the oscillator and passing the same through small hole then running in parallel again the same between a taking-out port and a condenser lens.  
**CONSTITUTION:** The laser beam 7 from a taking-out port 5 of a laser oscillator 1 is condensed by the 1st lens 13 and is passed through a pinhole 14a of a shielding plate 14 provided in the position at the focal length thereof, then the light is returned to the laser beam 7 running in parallel in the same direction by the 2nd lens 15. The beam 7 is radiated, via a reflecting mirror 8 and a condenser lens 9, to a material 11 to be worked. A part of the beam 7 reflects irregularly on melting of the material 11 and goes backward into an optical head H2 via a nozzle 10, but can hardly pass the pinhole 14a of the plate 14 so that the retrogression into the oscillator 1 is prevented.

**COPYRIGHT:** (C)1984,JPO&Japio

**INPADOC** None **Get Now:** [Family Legal Status Report](#)

**Legal Status:**

**Family:** [Show 3 known family members](#)

**Other Abstract Info:** None